#### DEPARTMENT OF PUBLIC WORKS

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July 18, 2003

John Schneider
Department of Energy
Rocky Flats Environmental Technology Site
10808 Highway 93, Unit A
Golden, CO 80403-8200

Re: Proposed Modifications to the Rocky Flats *Decommissioning Operations Plan* (DOP) for Building 771/774, dated June19, 2003

Dear Mr. Schneider:

The City and County of Broomfield appreciates the opportunity to review and provide comments to the Department of Energy (DOE) pertaining to the proposed modifications to the 771 Closure Project Decommissioning Operations Plan, Modification 5, dated June19, 2003. Broomfield considers the 771 DOP, to be a document that should include explicit remediation activities, enforceable short-term stewardship objectives, and identification of potential enforceable long-term stewardship objectives. We appreciate the effort the Site has made to address our questions and concerns prior to the release of the draft document and the start of the public comment period. Wording in italics in this letter are quotes from the DOP. City staff has very thoughtfully and thoroughly reviewed this draft document and has general comments.

## Proposal to Decontaminate the Basement/Foundation to the Radionuclide Action Levels

The City and County of Broomfield appreciates the many meetings DOE has had with us to discuss the proposal to decontaminate the foundations and/or basements of Building (B) 771 and B774 to the radionuclide action levels. Broomfield wants to emphasize, as it did in our previous meetings, that this is a unique situation and this approach should not set precedence for other buildings. To allow contaminated basements and/or foundations to remain will have long-term stewardship responsibilities, especially if the foundations are within areas of shallow water tables.

Broomfield does not want to pose an additional risk to the health and safety of the worker if there is no significant reduction in environmental risks to groundwater or surface water. In previous meetings, we have asked for additional information pertaining to groundwater modeling scenarios and the potential for seeps to form, and we are still waiting for this information. In addition, we have asked for a more detailed engineering design of the backfill operations, proposed land configuration design to ensure the stability of the area over time, and details of the groundwater management systems to evaluate the proposal.





Mr. John Schneider July 18, 2003 Page 2 of 7

The City & County of Broomfield supports the proposal if the following items are addressed and evaluated prior to demolition of B771 and B774.

# Removal of Source Carbon tetrachloride in Individual Hazardous Substance Site (IHSS) 118.1

To minimize the major source of groundwater contamination in this area, an action should be taken to remove the source material, carbon tetrachloride, in IHSS 118.1. For Broomfield to support this proposal, we expect a commitment from DOE to actively remove the source contamination in IHSS 118.1.

## **Building 771 and B774 Slab**

Section 4.4.2 Decontamination, Page 23 states: "If the contamination extends several inches into the concrete, the concrete will generally be removed, if it exceeds the 7 nCi/g." Delete the word "generally". Broomfield does not approve of any contamination above 7 nCi/g to remain on the slab. In addition, we also request Insta-Coat be applied to the concrete slab to serve as an encapsulant for the residual contamination.

Infinity Room 141 Demolition and Environmental Air Quality Monitoring

The plans for demolition of Room 141, known as the infinity room, have been modified in the revised DOP. Clarify the environmental air monitoring requirements during the demolition of the room. The DOP states a containment tent will be utilized for contamination control, but does not address the specifics of contamination controls. Provide Broomfield with the specifics such as the size of the tent, load-out areas, and surface water management controls. Identify the document that will capture the air monitoring data quality objectives and sampling criteria. Will the Colorado Department of Public Health and the Environment (CDPH&E) or the Environmental Protection Agency (EPA) be performing additional air quality monitoring? Broomfield requests the Integrated Monitoring Plan (IMP) be revised as soon as possible to reflect the requirement of additional project-specific air monitoring during dirty demolition activities.

#### **Under Building Characterization (UBC)**

Section 4.5 Under Building Characterization, page 26, identifies a deviation from the Industrial Area Sampling and Analysis Plan (IASAP). The IASAP requires an 11-meter statistical grid to determine sampling locations. The DOP states the grid was enlarged to a 22-meter statistical grid because emphasis was placed on biased sampling at sumps and tanks. Broomfield does not agree with the concept of enlarging sampling grid size based on the need to perform additional bias sampling. The 11-meter statistical grid size would have provided the additional sampling data to adequately characterize the UBC in this area. Broomfield does not consider this deviation from the IASAP acceptable. Provide us with the revised data quality objectives and revision to the IASAP to allow for the revised sampling protocol.

### **Independent Verification and Validation (IVV)**

The City & County of Broomfield believes it is germane to emphasize the need to have an Independent Verification and Validation (IVV) performed of the pre-demolition survey and of the characterization of the remaining slab with residual contamination. The



Mr. John Schneider July 18, 2003 Page 3 of 7

independent verification and validation will ensure Broomfield that adequate analysis and characterization has been performed to document the amount of residual contamination remaining post-closure. The contaminants may have the potential to impact the water quality in Walnut Creek. Defining the source term now will be useful should there be contaminant migration post-closure. Add a section to the DOP which will address the IVV process. Once again, Broomfield is committed to work with DOE to finalize the data quality objectives for an independent review of facility demolition for Type III buildings. The objectives and criteria should be for free-release buildings and/or for buildings requiring a dirty demolition. We look forward to working with you and finalizing an IVV Plan prior to demolition of B771/B774.

## Site Restoration and Erosion Control

Section 4.7.1.8 Demolition of the main Building 771 Structure, page 35, paragraph 2, states:

"Site restoration activities will be conducted after a no further accelerated action has been obtained for under building contamination. Backfill operation may be conducted by decommissioning or environmental restoration and details on the activity will be contained in work packages. The requirement for the backfill activity will be based on the groundwater modeling and land configuration to provide a relatively stable surface suitable for a wildlife refuge. Backfill operations may involve soil, recycled concrete and/or flowable fill. Sections 4.7.3 and 5.5 contain additional details on the potential backfilling methods."

Broomfield is concerned site restoration (short-term revegetation) will not be conducted until a no further accelerated action has been approved by the regulators. Site restoration, which we see as short-term, and long-term plans should be addressed in the DOP. Short-term revegeation plans should be in place and performed once demolition has been completed and backfill operations have been conducted. The DOP states the details of the backfilling will be included in the work packages. As a minimum, the DOP should include short-term restoration/revegetation criteria. With the proposed degree of slope for the backfill, the DOP should include the short-term revegeation plan.

The short-term revegetation plan should include the inspection criteria to ensure the stability of the hillside. The inspection criteria should include the schedule; measures to identify signs of erosion, measures to identify seeps, subsidence, sluffing, measures to identify the effectiveness of french drains and/or footer drains, or any other potential physical control. It is imperative to identify these controls within the DOP to make the inspections and associated criteria mandatory until closure. Once the final land configuration and water balance studies have been completed, the final inspection criteria should be identified in the Corrective Action Decision/Record of Decision (CAD/ROD) and in the post- closure Integrated Monitoring Plan.

Erosion controls should be identified in the DOP to ensure the stability of the hill slope. Page 38 identified some of the controls, but does not identify the details. The details of the drainage layer and where the flow from this layer will be directed should be identified in the DOP. What is the final slope of the hillside? An Erosion Control Plan should be developed and approved for this area prior to remediation. Add the Erosion Control Plan as an appendix to the DOP. Provide Broomfield with the erosion modeling performed for

Mr. John Schneider July 18, 2003 Page 4 of 7

the hillside. Clarify if wet or dry years were modeled and what the erosion rates were during the modeling. Not knowing the final land configuration of this area, at what point in time would there be a potential for slabs to be exposed if they are between 3-6 feet in depth? We appreciate the revisions to the DOP to include the near-term erosion controls. but they are not specific enough to ensure the stability of the hillside. The DOP states the near term recommendations will be reevaluated in subsequent close-out reports for all actions taken. Clarify the reevaluation process and what the data quality objectives are. Identify the document that will determine the monitoring and inspection of the area prior to the final grading and successful vegetation of the area. Broomfield does not agree with the statement that after final grading and successful vegetation of the area, no specific long-term stewardship activities are recommended beyond the generally applicable Site requirement that may be imposed on this are in the future. Inspections will still have to be performed to inspect for erosion, seeps, sluffing, subsidence, or protruding slabs. Broomfield appreciates the revisions in section 4.7.4 which address near-term generic recommendations and other long-term stewardship requirements. However, we do not agree with the statement in the DOP implying no specific long-term stewardship activities will be needed. Delete the statement that no specific long-term stewardship activities will be needed and refer to the Erosion Control Plan of the DOP. Before demolition of B771/B774, the design of the french drain, disposition of the footer drains. and specifics of the permeable layer should be identified. Broomfield requests clarification on the process to keep us included with the design of erosion controls measures for this project. We anticipate continued dialogue with the integration of the northern Industrial Area and this project.

## **Decommissioning Closeout Report**

We want to thank the Site for revising the DOP to include utilization of the global position system location of the B771/B774 structure remaining underground and a reference to the final characterization report, which details the nature and extent of the contamination remaining on the structure. We appreciate the efforts the Site and the regulators have made to enhance the information in the Decommissioning Closeout Reports. The City & County of Broomfield envisions the information in the closeout reports to be used as an information management tool post-closure to assist with source identification in the event of contaminant migration.

## Quality Assessment/Quality Control (QA/QC)

Page 42 discusses the guidelines for the United States Department of Transportation and Bureau of Reclamation for the placement criteria for embankments and fills using coarser materials. Broomfield appreciates the details of the criteria, but these guidelines usually have quality assessments and quality controls in place to ensure the guidelines have been met. Provide us with the name of the QA/QC Site document that ensures the placement activity is performed in accordance with the guidelines.

Clarify on page 45 why direct radiological surveys, no matter what the activity, will allow a unit to be clean closed under RCRA. If a RCRA unit is clean closed, you have to document the absence of contamination or decontaminate the unit. Provide Broomfield with the specific RCRA units that will not be clean closed and remain in the B771/B774

Mr. John Schneider July 18, 2003 Page 5 of 7

area. Provide the City & County of Broomfield with a copy of the contact letter approving such an activity.

## Applicable or Relevant and Appropriate Requirements

Add a section to the DOP to include opacity trained personnel will be utilized during the demolition of the facilities and backfilling of the hillside per 5CCR 1001-3, Section 11.A.1.

## **Environmental Consequences**

Clarify why impacts from disposition activities at the site are analyzed with other cumulative activities such as nearby gravel pit operations. Was this approach utilized in previous National Environmental Policy Act (NEPA) analyses at the site?

Identify the closest surface water sampling station locations downgradient from the facilities.

The City & County of Broomfield would like to continue dialogue with the Site as the planning of the B771/B774 project progresses. Prior to the demolition of B771 and B774, the short-term revegeation and erosion controls measure should be in place and included in the DOP. To ensure long-term protection and viability of this proposal and integration with the northern Industrial Area, Broomfield expects to be involved with final stewardship decisions. We anticipate the details of the stewardship analysis will be provided to us so we are able to make informed decisions associated with the protection of water quality in Walnut Creek. We anticipate further dialogue regarding stewardship and the enforceability of the long-term stewardship criteria. We anticipate the specific criteria will be addressed in closure documents such as the CAD/ROD or other post-closure documents.

#### **Demolition of the Tunnels**

Broomfield does not agree with the proposed methodologies for abandoning the two tunnels in place. The two tunnels, which are the exhaust tunnel between B771 and the stack and the second tunnel between B771 and B776, are in areas with shallow water tables. The tunnels should be removed or collapsed so that they do not pose any future groundwater problems. The B771/B776 tunnel could subside and impact the hillside protecting the contaminated slabs. Both tunnels could act as conduits for groundwater flow and generate seeps or cause groundwater to flow away from the proposed groundwater treatment unit. With the additional potential environmental impacts from the remaining residual contamination on the slabs to groundwater, Broomfield recommends the tunnels be removed or collapsed so that we can support the Sites' proposal for B771 and B774.

## Groundwater Water Modeling and Surface Water Management

Broomfield continues to be concerned with the work planning and execution of protecting surface water from contaminated groundwater within the area. The B771/B774DOP is not specific enough to address the potential degradation of groundwater or surface water. The plan does not address how run-on and run-off will be addressed when areas are being remediated with contaminated slabs or adjacent to contaminated areas that will not be remediated such as B776 until a much later date.

Mr. John Schneider July 18, 2003 Page 6 of 7

In previous meetings, Broomfield supported the proposal based on additional information being provided to us to make an informed decision. The Site made a commitment to provide us with information such as the groundwater modeling and land configuration design for this area. Please provide the City & County of Broomfield with the additional information we requested to evaluate the impact to surface water quality in this area. We also request additional information performed by the Actinide Migration Evaluation group such as the effect of actinide transport in the presence of volatile organics or uranium. With americium as the key contaminant for B774, will contaminant migration be enhanced? Broomfield anticipates we will continue to meet to discuss the integration of the northern Industrial Area and the B771/B774 remediation project.

The groundwater modeling, backfill design, and land configuration plan will provide the City & County of Broomfield with the data and information to determine the need for additional groundwater wells in the area. D&D wells have been established in the area, and the new backfill plan may require the need to relocate the D&D wells. Clarify if the groundwater modeling information acknowledges the need to reposition the D&D wells. If the wells have to be repositioned, the Site will have to perform additional baseline monitoring prior to remediating the area. We ask that the Site utilize the IMP process to identify the data quality objectives of the wells. We also recommend the objectives include triggers to determine when evaluations and/or remediation actions are required. As an asset holder, Broomfield wants to ensure the water quality of Walnut Creek is protected.

Add a section to the DOP to include the details of the groundwater management systems for the B771/B774 project. Include the details of the cover for the slab, the french drains, and how groundwater flow will be managed. The DOP states on page 37 that areas may be punched through the B771/B774 superstructure to manage groundwater. Will the holes impact the integrity of the superstructure? Clarify how groundwater flow through the holes will not increase the potential for erosion of the concrete, thus releasing contaminated particles into the groundwater.

Clarify if the footer drains will be left in place as per the B771/B774 plan or if they will be dispositioned per the Environmental Restoration RFCA Standard Operating Protocol (ER RSOP). Provide Broomfield with characterization data of the footer drain. If the footer drains or sumps are contaminated, what are the plans to utilize the footer drains or sumps?

#### **Environmental Stewardship**

Broomfield appreciates the revision to the DOP in Section 4.7.4, which includes stewardship. The City & County of Broomfield wants to emphasize the importance of both short-term and long-term stewardship responsibilities associated with this remedy selection. Broomfield expects to be involved with the final stewardship decisions. We once again anticipate the details of the stewardship analysis will be provided to us so we may make informed decisions associated with the protection of water quality in Walnut Creek. We anticipate further dialogue regarding stewardship and the enforceability of the long-term stewardship criteria. We anticipate the specific criteria will be addressed in



Mr. John Schneider July 18, 2003 Page 7 of 7

closure documents such as the CAD/ROD or other post-closure documents. Broomfield expects the Surface Water and Groundwater Working Group to develop and recommend the final stewardship sampling methodologies for post-closure evaluations.

Finally, Broomfield would like to commend Kaiser-Hill on the specific methodologies and plans for mobilization, site preparation, and demobilization for the B771/B774 project. We appreciate the public process the Site has developed with the D&D projects. We also appreciate the numerous meetings the Site has given to the City & County of Broomfield to educate us and help us to understand the rationale for the B771/B774 proposal. We appreciate the opportunity to continue our dialogue once we receive the groundwater modeling report, backfill design, and the final land configuration plan for this area.

Thank you for the opportunity to comment on this crucial document. The City & County of Broomfield expects that we will continue to be involved, informed, and allowed to participate in the revision to the 771 DOP. We anticipate a future meeting to disposition our comments. If you have any questions, please feel free to call Shirley Garcia, of my staff, at 303-438-6329.

Sincerely,

Nerva Dans Dorian Brown

Director of Public Works

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